# **Dealer Setup** & Adjustment Instructions

## 319 Series Single Stage Snowthrower

-This Dealer Setup Instruction applies to the following units: -

### **319 Series Snowthrowers** Mfg. No. Description

1694382 319M, 3HP Snowthrower, Manual Start 1694383 319E, 3HP Snowthrower, Electric Start

## ATTENTION SETUP PERSONNEL:



The safety warnings provided in this guide and in the operator's manual included with the unit contain important information that must be obeyed when assembling, setting-up, operating, servic-

ing, transporting, or storing the unit.

These warnings are highlighted by the safety alert triangle symbol shown above, which signifies that an important safety message is being provided.

You must read, understand, and follow these warnings and instructions, and use safe shop and work practices at all times while working on or around this unit and all other outdoor power equipment.



Sections and items denoted by the Setup symbol provide the information necessary to fully assemble, test, and prepare the units

described above for delivery to your customers.

A Quick Setup List is provided on page 3 of this booklet to help you identify and check that the items have been performed.



These instructions may cover additional models issued after their printing. Refer to the Dealer Setup Binder Index for complete listings.

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Snapper Form No. 24536 Simplicity Form No. 1725536-00

## **SAFETY RULES**



Read these safety rules and follow them closely. Failure to obey these rules could result in loss of control of equipment, severe personal injury or death to you, yourself or bystanders, or damage to property or equipment. This auger is capable of amputating hands and feet and throwing objects. The triangle  $\triangle$  in text signifies important cautions or warnings which must be followed.

### General

- Read the Operator's Manual carefully. Be thoroughly familiar with all controls and proper equipment use.
- Never allow children to operate the machine. Do not allow adults to operate it without proper instruction.
- Keep the area of operation clear of all persons, particularly small children and pets.
- Never discharge material toward any person or pet.
- Make sure:
- a. Snowthrower is in good operating condition;
- b. All safety devices and shields are in place and working;
- c. All adjustments are correct.

### Preparation

- Never attempt to make any adjustment while engine is running.
- Thoroughly inspect the area where the snowthrower is to be used and remove all objects such as door mats, sleds, boards, wires and sticks.
- Disengage all clutches (release Auger Control lever) before starting engine.
- Do not operate snowthrower without wearing proper winter clothing. Wear footwear which improves footing on slippery surfaces.
- Handle gasoline with care it is highly flammable.
- a. Use approved gasoline container.
- b. Never remove the fuel tank cap or add gasoline to a running or hot engine.
- c. Never fill the fuel tank indoors.
- d. Wipe up spilled gasoline.
- Do not run engine indoors. Exhaust fumes are deadly.

### Operation

- Keep hands and feet away from rotating parts. Keep clear of discharge opening at all times.
- Always clear snow up and down the face of slopes, never across the face. Use extreme caution when changing direction on slopes. Do not attempt to clear slopes over 17.7% (10°).
- Use extreme caution when operating on or crossing drives, walks or roads. Stay alert for hidden hazards and traffic.
- Be especially careful not to touch snowthrower parts which might be hot from operation. Allow such parts to cool before attempting to maintain, adjust or service.
- If unit starts to vibrate abnormally, disengage drives and stop the engine. Check immediately for the cause.
  Vibration is generally a warning of trouble.
- Never operate machine at high transport speeds on slippery surfaces. Use care when backing up.
- Before leaving operator's position for any reason:
  - shut off engine,
  - remove the Engine Key and
- wait for all moving parts to stop.
- Before cleaning, repairing or inspecting the unit, make certain all moving parts have stopped. Remove the key to prevent accidental starting.
- Always use a grounded, 3-wire plug receptacle for electric starting.
- · Adjust snow discharge angle for safe flow when operating

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To avoid serious injury, do not put your hands into the auger housing or discharge chute. If auger stalls or chute becomes plugged, use the following procedure to remove objects or clear the chute:

- 1. Release the Auger Control.
- 2. Shut off the engine.
- 3. Remove the Engine Key.
- 4. Wait for moving parts to stop.
- 5. Use a narrow board to remove foreign objects and clear the chute or auger. Never put your hands into the auger or discharge chute.
- 6. If servicing is needed, remove cover and disconnect spark plug wire.

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This unit is a "single-stage" snowthrower. The auger feeds the snow back into the housing and throws the snow out the discharge chute. If bodily contact is made with the auger or impeller when they are rotating, severe personal injury will occur.

To avoid injury, keep others and yourself away from the auger and the discharge chute whenever the engine is running. Read and follow all of the safety rules and warnings in this manual.

near glass enclosures, automobiles, window wells, dropoffs, etc.

- Do not overload machine capacity by clearing snow at too fast a ground speed.
- Disengage Auger Control when transporting or not in use.
- Never operate the snowthrower without good visibility or light. Always be sure of your footing.
- Do not change the engine governor settings or overspeed the engine.
- Never direct the discharge chute at bystanders; nor allow anyone in front of the unit while it is operational.
- Never operate this machine without all of the proper guards or other safety protective devices in place.

#### Maintenance & Storage

- Keep all nuts, bolts and screws tight to ensure that the equipment is in safe operating condition.
- Never store equipment with gasoline in the tank in a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
- Always refer to the Operator's Manual for important details if snowthrower is to be stored for an extended period.
- Run auger drive a few seconds after completion of throwing snow to help clear out snow and prevent icing and freeze-up on unit.

# **Quick Setup List -**

Page	Setup Procedure	Steps to Perform			
4	Unbox & Assemble	Remove Unit From Box.			
		Install Discharge Chute			
		Assemble Handle Bars			
		(Be careful not to pinch the auger cable)			
5	Fill Gas Tank	Fill Gas Tank			
6	Adjust Auger Cable	Adjust auger Cable			
6	Test Run	Check Primer			
		Check Choke			
		Check Recoil Starter			
		Check Electric Starter (Where Applicable)			
		Check Auger Control Cable			
		Check Kill Switch			
		Check Chute Rotator			
		Check Deflector			



## **Unboxing & Assembly**

1. Using a utility knife, open the box and remove the snowthrower.



### **IMPORTANT NOTE**

When removing the snowthrower from the box and unfolding the handle bars DO NOT PINCH THE AUGER CONTROL CABLE IN THE HANDLE BARS.

- 2. The right side upper handle is bolted to the outside of the lower handle for shipping purposes. Unbolt and move the right side upper handle to the inside of the lower handle. Reinstall the bolt and knob. Lift up the folding handle to align it with lower handle and tighten the wing knobs securely as shown in Figure 1.
- 3. Install the lower chute handle onto the discharge chute with two hex head capscrews (Figure 2).
- Install the chute/handle assembly onto the discharge opening and secure with three carriage bolts and nuts (Figure 2). Tighten all hardware securely. Do not overtighten.

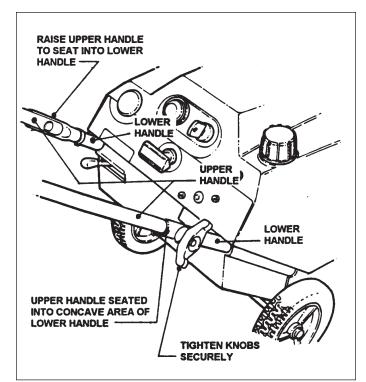


Figure 1. Install Handle Bars

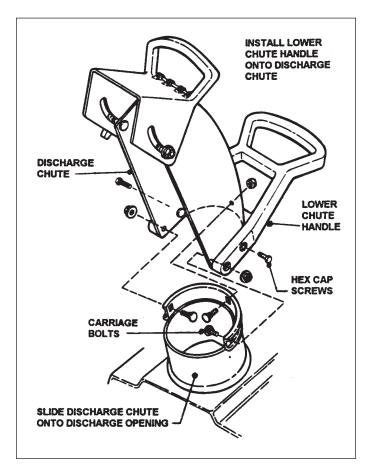


Figure 2. Install Discharge Chute



### **Fuel and Oil Mixture**

The snowthrower uses a two cycle engine that requires a mixture of fuel (gasoline) and oil for lubrication of engine bearings and other moving parts.

The correct fuel/oil mixture ratio for the five horsepower engine is 50 to 1. Use fuel/oil mixture chart shown.

### NOTE: To prevent damage to engine, carefully observe recommended fuel to oil mixing ratio and procedures.

- Gasoline and oil must be premixed in a clean fuel container.
- Always use fresh, unleaded, winter grade fuel
- Never put plain, unmixed fuel into fuel tank. Shake fuel container each time before filling fuel tank.
- Never use "stale" fuel left over from last season or stored for long periods.
- DO NOT USE MULTI VISCOSITY OILS, SUCH AS 10W-30 or 10W-40.

### **Proper Fuel Mixing Procedure**

- 1. Fill approved clean fuel container one quarter full with fresh unleaded fuel one quart (one liter) in a one gallon (4 liter) container.
- Pour recommended amount of high quality two cycle oil — 2.5 ounces (80 ml) into fuel container for one gallon (4 liters) of fuel. (NOTE: DO NOT USE MULTI VISCOSITY OILS, SUCH AS 10W-30 or 10W-40.)
- 3. Reinstall cap on the fuel container and shake container vigorously so oil mixes with gasoline.
- 4. Unscrew cap and fill container with fuel. Shake container again.
- 5. Remove fuel tank cap and carefully pour mixed fuel into the fuel tank, filling to 1/2 inch (1.5 cm) below filler neck to allow room for expansion. Never put plain, unmixed fuel into fuel tank. Shake fuel container each time before filling fuel tank.

FUEL TO OIL MIXTURE CHART (50:1)									
U.S.		Imperial		Metric					
Gasoline Gallons	2 Cycle Oil Ounces	Gasoline Gallons	2 Cycle Oil Ounces	Gasoline Liters	2 Cycle Oil Milliliters				
1	2.5	1	2.8	4	80 ml				
2	5	2	5.6	8	160 ml				
5	13	5	14.1	20	400 ml				

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Gasoline is highly flammable and must be handled with care. Never fill the tank when the engine is hot or running. Always move outdoors to fill the tank. Keep snowthrower and gasoline away from open flame or spark.

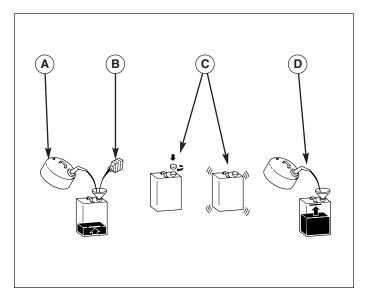


Figure 5. Proper Fuel Mixing Procedure

- A. Fill Container with 1 Quart (1 Liter) of fuel
- B. 2.5 Ounces (80 ml) of two-cycle oil
- C. Combine in container, then shake container
- D. Additional fuel brings total to 1 Gallon (4 liters)



### Inspection

- 1. Inspect the auger cable for kinks, wear, or frayed cable strands. Replace if worn or damaged.
- 2. Start the engine.
- 3. Engage the auger control for 5 seconds.
- Disengage the auger control. The auger should stop in 5 seconds or less. If not, perform the auger control adjustment.

### Adjustment

- 1. Turn the engine OFF.
- 2. With the auger control disengaged, measure the length of the cable spring (A, Figure 4).
- 3. Engage the auger control and measure the length of the expanded cable spring (A, Figure 5).

The cable spring should be stretched 1/2"-3/4" (1.3cm-1.9cm) when the auger control is engaged. If not, proceed to step 4.

 Loosen the jam nut (B, Figure 4) at the upper end of the cable. Hold the threaded end of the cable and turn the cable clockwise until the desired extension is achieved. Retighten the jam nut and repeat steps 2-3.

If the cable sheath cannot be adjusted to achieve 1/2"-3/4" (1.3cm-1.9cm) of spring deflection, the auger belt idler pulley can be adjusted. See the following section.

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DO NOT over-tighten the cable. The control cable must have some slack when in the disengaged position for the auger brake to function properly. If the auger does not stop within 5 seconds of the auger control being released, see your dealer.

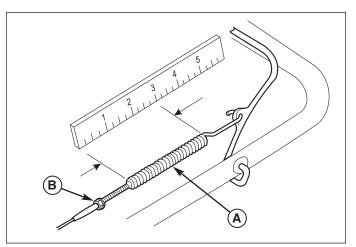


Figure 4. Auger Cable Adjustment - Disengaged A. Cable Spring B. Jam Nut

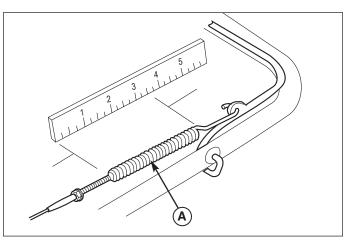


Figure 5. Auger Cable Adjustment - Engaged A. Cable Spring



## Test Run

Test run the unit for several minutes. Check that the following work properly:

- Primer
- Choke
- Recoil Starter
- Electric Starter (Where Applicable)
- Auger Control Cable
- Kill Switch
- Chute Rotator
- Deflector

Simplicity

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